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10/029,185	12/28/2001	Hisashi Sano	111602	4559

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
WORKU, NEGUSSIE	

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/029,185	Applicant(s) SANO, HISASHI
	Examiner Negussie Worku	Art Unit 2626

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 July 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. Claim Rejections - 35 USC § 112The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4, 6, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. Claims indicted above are multiple dependent.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kito et al. (USP 2001/0046070 A1)

With respect to claim 1, Kito et al. discloses an image reading apparatus (fig 1) including imaging means (image sensor 90A of fig 1) for reading a color image of a transparent film original (film original 28 of fig 1) to output color resolution signals of a plurality of colors, (RGB colors as shown in fig 4 and 6) comprising: individual light density distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11) for calculating individual light density distributions (wedge 44, causes light-intensity distribution along a film conveying direction, see col.6, paragraph 0082, lines 6-9) of the transparent film original (film original 28 of fig 6) from density characteristics of the transparent original film (28 of fig 1 or 6) and the color resolution signals output by the imaging means (image sensor 90A of fig 1).

With respect to claim 2, Kito et al. discloses an image reading apparatus (fig 1), wherein the density characteristics are individual light density curves of the transparent film original with respect to a predetermined color, (the reading conditions may be set at the scanner controlling portion 104 on the basis of the information regarding the film type, see col.5, paragraph 0078, lines 11-16); and the individual light density distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11) obtains the density characteristics in advance, see (col.5, paragraph 0078, lines 11-16); and, when the color resolution signals are output by the imaging means, (image sensor

90A of fig 1) converts the color resolution signals to density equivalent values, obtains a value of a parameter showing the density of the transparent film original (film original 28 of fig 1) by linear conversion of the density equivalent values according to the density characteristics,(film sensitivity information from the information reading portion), and calculates the individual light density distributions of the transparent film original from the value of the parameter(controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11).

With respect to claim 3, Kito et al. discloses an image reading apparatus (fig 1), wherein the density characteristics are individual light density curves of the transparent film original with respect to a predetermined color, (the reading conditions may be set at the scanner controlling portion 104 on the basis of the information regarding the film type, see col.5, paragraph 0078, lines 11-16); and the individual light density distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11) obtains the density characteristics in advance, see (col.5, paragraph 0078, lines 11-16); and by performing colorimetry of the plurality of predetermined colors, (RGB color as shown in fig 6) correlates values of the color resolution signals readable by the imaging means (image reader 90A of fig 1) to a value of a parameter showing a density of the transparent film original (28 of fig 1) according to the density characteristics, and when the color resolution signals are output by the imaging means, (90A of fig 1) obtains a

value of the parameter from the color resolution signals based on the correlation, and calculates the individual light density distributions of the transparent film original from the value of the parameter, see (col.10, paragraph 0130, lines 8-15).

With respect to claim 4, Kito et al. discloses an image reading apparatus (fig 1), wherein the individual light density distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11), changes the density characteristics which are used in the process of calculating the individual light density distributions according to a type of the transparent film original, see (col.10, paragraph 0130, lines 8-15).

With respect to claim 5, Kito et al. discloses an image reading apparatus (fig 1), further comprising type obtaining means (detecting sensor 13 of fig 1, obtain information regarding the film) for obtaining the type of the transparent film original (28 of fig 1) read by the imaging means (CCD 94A of fig 1, see col.5, paragraph 0076, lines 1-5).

With respect to claim 6, Kito et al. discloses an image reading apparatus (fig 1), further comprising transmitted light distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11) for converting the individual light density distributions calculated by the individual light density distribution calculation means (controller 40 of fig 1) to individual light transmissivity distributions, and for calculating

transmitted light distributions of the transparent film original (film original 28 of fig 1) from individual light distributions of a predetermined light source (light source 88 of fig 12B) and the individual light transmissivity distributions, see (col.6, paragraph 0082, lines 5-9).

With respect to claim 7, Kito et al. discloses an image reading apparatus (fig 1), further comprising: table color system conversion means (LUT table performs a log-conversion for each input reading data, see col.11, paragraph 0133, lines 4-9) for calculating values of a predetermined table color system from the transmitted light distributions calculated by the transmitted light distribution calculation means (controller portion 40 of fig 1, computes parameters for various image processing, such as density of color image, see col.10, paragraph 0130, lines 5-11).

With respect to claim 8, Kito et al. discloses an image reading apparatus (fig 1), including imaging means (image sensor CCD of fig 1) for reading a color image of a transparent film original (film 28 of fig 1) to output color resolution signals of a plurality of colors, (RGB color fig 6) comprising: table creation means (LUT 158 of fig 1) for creating a table showing a correlation between values of a predetermined table color system (fig 1), and color resolution signals readable by the imaging means (CCD 90A of fig 1); and table color system conversion means (LUT table 158 of fig 1) for converting the color resolution signals output by the imaging means (CCD 90A of fig 1) to values of a predetermined table color system based on the table, see (col.11, paragraph 0133, lines

4-9); wherein, from density characteristics of the transparent film original (film 28 of fig 1) and a plurality of versions of virtual color resolution signals readable by the imaging means (CCD 90A of fig 1), the table creation means (LUT table 158 of fig 1) calculates an individual light density distribution for each virtual color resolution signal, calculates values of a predetermined table color system from the individual light density distributions, and creates the table, see (col.11, paragraph 0133, lines 5-9).

With respect to claim 9, Kito et al. discloses an image reading apparatus (fig 1), wherein the density characteristics are individual light density curves of the transparent film original (original film 28 of fig 1) with respect to a predetermined color (RGB of fig 6); and the table creation means (LUT table 158 of fig 19) obtains the density characteristics, (density parameters, col.11, paragraph 0133, lines 6-9) converts each virtual color resolution signal to a density equivalent value, obtains a value of a parameter showing a density of the transparent film original (original film 28 of fig 1) by linear conversion of the density equivalent values according to the density characteristics, (density parameters, col.11, paragraph 0133, lines 6-9), and calculates the individual light density distribution with respect to each virtual color resolution signal from a value of the parameter.

With respect to claim 10, Kito et al. discloses an image reading apparatus (fig 1), wherein the density characteristics are individual light density curves of the transparent film original (film 8 of fig 1) with respect to a plurality of predetermined colors, see

col.11, paragraph 0133, lines 4-8); and the table creation means (LUT table 158 of fig 19) obtains the density characteristics by performing colorimetry of the plurality of predetermined colors, see (col.11, paragraph 0133, lines 4-8); correlates values of the color resolution signals readable by the imaging means (CCD 90A of fig 1) to a value of a parameter showing a density of the transparent film original, (original film 28 of fig 1) obtains a value of a parameter, based on the correlation, from a value of each virtual color resolution signal, (RGB color fig 6) and calculates the individual light density distribution with respect to each of the virtual color resolution signals from the value of the parameters.

With respect to claim 11, Kito et al. discloses an image reading apparatus (fig 1), wherein the table creation means (LUT table 158 of fig 19) changes the density characteristics which are used in the process of calculating the individual light density distributions for each virtual color resolution signal according to a type of the transparent film original, see (col.11, paragraph 0133, lines 4-8).

With respect to claim 12, Kito et al. discloses an image reading apparatus (fig 1), wherein the table creation means (LUT table 158 of fig 1) converts the individual light density distributions to individual light transmissivity distributions, calculates transmitted light distributions from individual light distributions of a predetermined light source (88 of fig 12B) and the individual light transmissivity distributions, and calculates values of a predetermined table color system from the transmitted light distribution, see (col.11,

paragraph 0133, lines 4-8).

With respect to claim 13, Kito et al. discloses an image reading apparatus (10 of fig 1), a program which performs signal processing by a computer (processing portion 26 of fig 1) with respect to color resolution signals of a plurality of colors read by an image reading apparatus (10 of fig 1) having imaging means (CCD 90A of fig 1) for reading a color image of a transparent film original (film 28 of fig 1) to output color resolution signals of a plurality of colors, (RGB colors of fig 6) comprising: an individual light density distribution calculation procedure which calculates individual light density distributions of the transparent film original from density characteristics of the transparent film original and the color resolution signals output by the imaging means, (CCD sensor 90Aof fig 1, see (col.11, paragraph 0133, lines 4-8).

With respect to claim 14, Kito et al. discloses a program which performs signal processing by a computer (processor 26 of fig 1) with respect to color resolution signals of a plurality of colors (RGB color of fig 6) read by an image reading apparatus (10 of fig 1) having imaging means (CCD image sensor 90A of fig 1) for reading a color image of a transparent film original to output color resolution signals of a plurality of colors, (RGB color of fig 6) comprising: a table (LUT table 158 of fig 19) creation procedure which creates a table showing correlation between values of a predetermined table color system and color resolution signals read by the imaging means (10 of fig 1); and a table color system (LUT 158 of fig 1) conversion procedure which converts the color

resolution signals read by the imaging means (CCD image sensor 96Aof fig 1) to values of a predetermined table color system based on the table (158 of fig 19); wherein, from density characteristics of the transparent film original and a plurality of versions of virtual color resolution signals readable by the imaging means (96A of fig 1), the table creation procedure calculates an individual light density distribution for each virtual color resolution signal, calculates values of a predetermined table color system from the individual light density distributions, and creates the table, see (col.11, paragraph 0133, lines 4-8).

With respect to claim 15, Kito et al. discloses a recording medium, readable by a computer, (26 of fig 1) which stores a program that performs signal processing by a computer (processing portion 26 of fig 1) with respect to color resolution signals of a plurality of colors read by an image reading apparatus (10 of fig 1) having imaging means (CCD 90A of fig 1) for reading a color image of a transparent film original (film 28 of fig 1) to output color resolution signals of a plurality of colors, (RGB colors of fig 6) comprising: an individual light density distribution calculation procedure which calculates individual light density distributions of the transparent film original from density characteristics of the transparent film original and the color resolution signals output by the imaging means, (CCD sensor 90Aof fig 1, see (col.11, paragraph 0133, lines 4-8).

With respect to claim 16, Kito et al. discloses a recording medium readable by computer (processor 26 of fig 1) with respect to color resolution signals of a plurality of

colors (RGB color of fig 6) read by an image reading apparatus (10 of fig 1) having imaging means (CCD image sensor 90A of fig 1) for reading a color image of a transparent film original to output color resolution signals of a plurality of colors, (RGB color of fig 6) comprising: a table (LUT table 158 of fig 19) creation procedure which creates a table showing correlation between values of a predetermined table color system and color resolution signals read by the imaging means (10 of fig 1); and a table color system (LUT 158 of fig 1) conversion procedure which converts the color resolution signals read by the imaging means (CCD image sensor 96Aof fig 1) to values of a predetermined table color system based on the table (158 of fig 19); wherein, from density characteristics of the transparent film original and a plurality of versions of virtual color resolution signals readable by the imaging means (96A of fig 1), the table creation procedure calculates an individual light density distribution for each virtual color resolution signal, calculates values of a predetermined table color system from the individual light density distributions, and creates the table, see (col.11, paragraph 0133, lines 4-8).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 571-272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KA Williams
KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

Negussie Worku
Patent Examiner
Art unit 2626
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